



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,044	07/24/2003	Edward E. Horton III	713-22-CIP	1451
22145	7590	06/29/2005		
KLEIN, O'NEILL & SINGH 2 PARK PLAZA SUITE 510 IRVINE, CA 92614			EXAMINER BEACH, THOMAS A	
			ART UNIT	PAPER NUMBER
			3671	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/626,044	HORTON, EDWARD E.	
	Examiner	Art Unit	
	Thomas A. Beach	3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on amendment filed 03/18/05.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. Claims 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beynet et al 4,290,715 in view of Korsgaard 5,553,976. Beynet shows an offshore oil well riser system extending from a floating vessel on the sea surface to a sub-sea well equipment located on the sea floor, the riser system having an elongated, substantially vertical section of pipe 20 supported by the floating body and extending downward towards the sea floor; an elongated, substantially horizontal section of pipe 22 connected to the sub-sea well equipment; an angled elbow section of pipe connecting the vertical pipe section to the horizontal pipe section such that the vertical and horizontal pipe sections resiliently flex in a direction generally perpendicular to their respective long axes in response to motion of the floating vessel but does not show an elongated flexing portion of pipe disposed axially within at least one of the vertical and the horizontal pipe sections and arranged therein to resiliently flex in directions both generally perpendicular and parallel to its long axis in response to motion of the floating vessel. However, Korsgaard shows a similar riser structure having an elongated flexing portion of pipe disposed axially within at least one of the vertical and the horizontal pipe sections and arranged therein to resiliently flex in directions both generally perpendicular and parallel to its long axis in response to motion of the floating vessel (col. 4, lines 53-63) that allows the passage of tools through the flexing portion (col. 2, lines 34-37). Therefore, it would have been obvious to one of ordinary skill in the art at

Art Unit: 3671

the time the invention was made to modify Beynet, as taught by Korsgaard, to include portion of pipe disposed axially within at least one of the vertical and the horizontal pipe (the length of the riser and thus both vertical and horizontal; claim s11 and 14) in order to reduce the internal fluid pressure stresses of the riser and the external tension forces, thus reducing the wear of the riser which result in an expensive down time for maintenance of an over stressed riser.

As concerns claims 10 and 13, the specific wavelength of 20 and 40 feet and amplitude between 2 and 5 claimed would be obvious to one of ordinary skill in the art since these dimensions area a change in that is generally recognized as being within the level of ordinary skill in the art thorough routine experimentation results in these dimension which do not solve any particular stated problem.

### ***Response to Arguments***

2. Applicant's arguments filed 03/18/05 have been fully considered but they are not persuasive. Applicant's arguments regarding the passage of tools in the flexing portion are noted and specific dimensions of wavelength and amplitude; however, in the rejection above Korsgaard shows this element as combined to be obvious.

### ***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A Beach whose telephone number is 571-272-6988. The examiner can normally be reached on Monday-Thursday, 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached at 571-272-6998. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9306 for regular communications and 703.872.9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.306.4198.

Art Unit: 3671

Thomas A. Beach

June 24, 2005

  
**THOMAS WILL**  
Supervisory Patent Examiner  
Group 3600

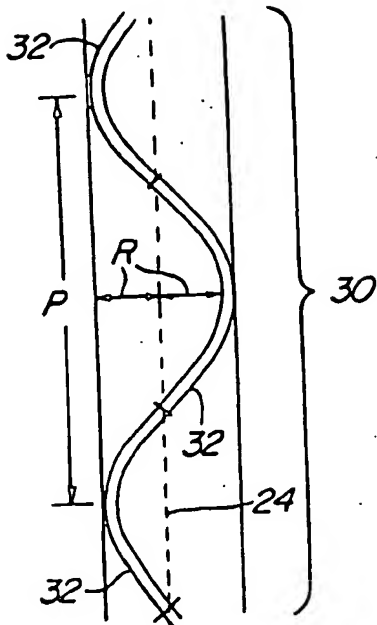


FIG. 8

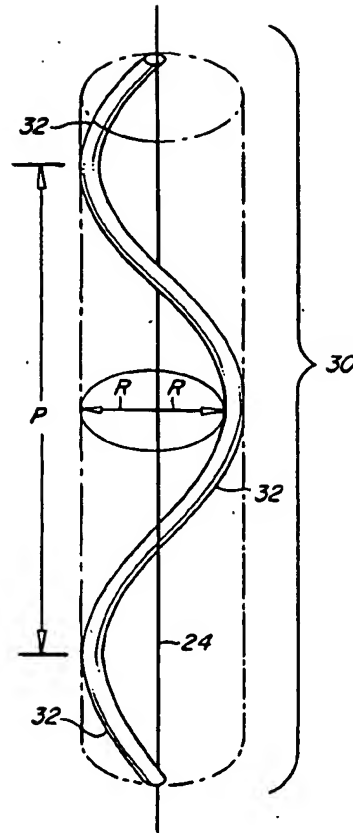


FIG. 9

OK  
 2  
 4/1/18

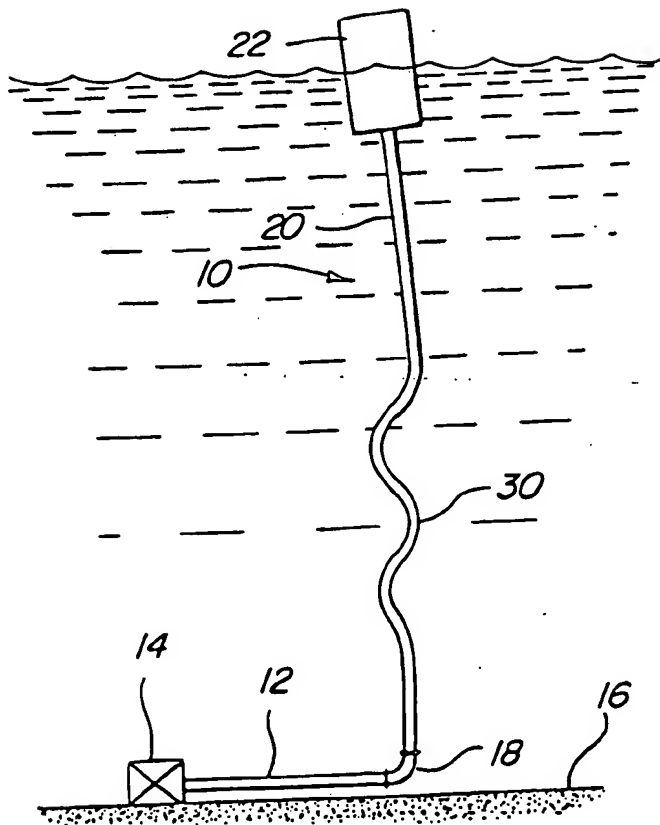


FIG. 10